

CLAIMS

1. Use of at least one acid-stable protease in animal feed, wherein the protease

5 (i) is of the subtilisin family; and/or

(ii) has less than 10% residual activity when inhibited with SSI.

2. Use of at least one acid-stable protease in the 10 preparation of a composition for use in animal feed, wherein the protease

(i) is of the subtilisin family; and/or

(ii) has less than 10% residual activity when inhibited with SSI.

15

3. The use of claim 1, wherein the dosage of the protease is 0.01-200 mg protease enzyme protein per kg feed.

4. The use of claim 2, wherein the intended dosage of the 20 protease is 0.01-200 mg protease enzyme protein per kg feed.

5. A method for improving the nutritional value of an animal feed, wherein at least one acid-stable protease is added to the feed, and wherein the protease

25 (i) is of the subtilisin family; and/or

(ii) has less than 10% residual activity when inhibited with SSI.

6. An animal feed additive comprising

30 (a) at least one acid-stable protease; and

(b) at least one fat-soluble vitamin, and/or

(c) at least one water-soluble vitamin, and/or

(d) at least one trace mineral, and/or

(e) at least one macro mineral;

35 wherein the protease

(i) is of the subtilisin family; and/or

(ii) has less than 10% residual activity when inhibited with SSI.

7. The animal feed additive of claim 6, wherein the amount of the protease corresponds to an intended addition of 0.01-200 mg protease protein per kg feed.

5

8. The animal feed additive of any one of claims 6-7, which further comprises phytase, xylanase, galactanase, and/or beta-glucanase.

10 9. An animal feed composition having a crude protein content of 50-800 g/kg and comprising at least one acid-stable protease, wherein the protease

(i) is of the subtilisin family; and/or

(ii) has less than 10% residual activity when inhibited

15 with SSI.

10. The animal feed composition of claim 9, wherein the amount of the protease is 0.01-200 mg protease protein per kg feed.

20

11. A method for the treatment of vegetable proteins, comprising the step of adding at least one acid-stable protease to at least one vegetable protein or protein source, wherein the protease

25 (i) is of the subtilisin family; and/or

(ii) has less than 10% residual activity when inhibited with SSI.

12. The method of claim 11, wherein soybean is included
30 amongst the at least one vegetable protein source.

ABSTRACT

Acid-stable proteases of the subtilisin family, their use in animal feed, feed-additives and feed compositions containing such proteases, and methods for the treatment of 5 vegetable proteins using such proteases.